Gulf of Mexico Harmful Algal Bloom Bulletin

Region: AL/MS/FL

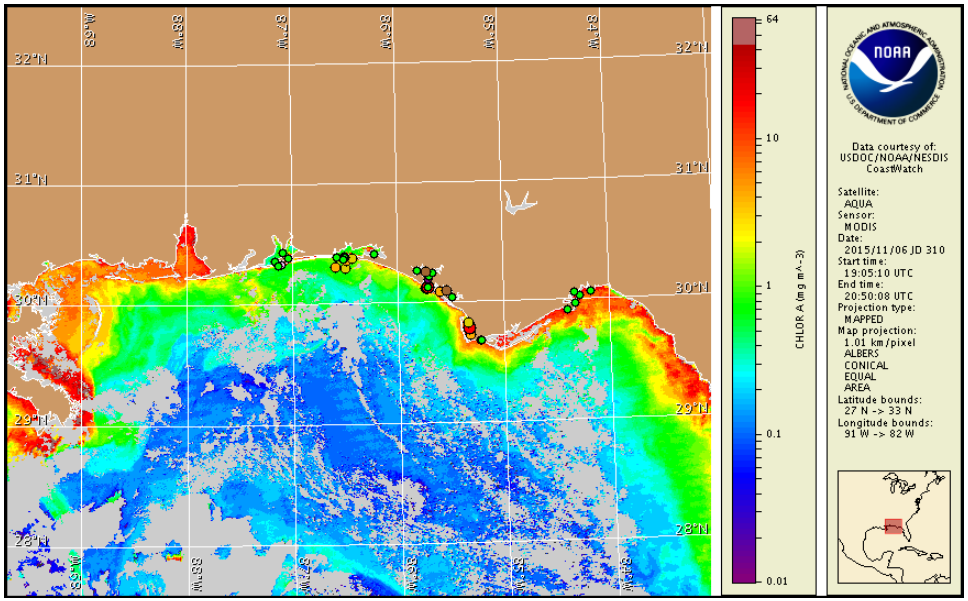
Monday, 09 November 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, November 5, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from October 30 to November 6: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information for Florida can be obtained through FWC Fish and Wildlife Research Institute at:

http://myfwc.com/redtidestatus

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit at: http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

Not present to high concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore portions of northwest Florida from Escambia to Gulf counties. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for along-shore northwest Florida Monday, November 9 to Thursday, November 12 is listed below:

County Region: Forecast (Duration)
Santa Rosa County: Very Low (M-Tu), Moderate (W-Th)
Okaloosa County: Very Low (M-Tu), Moderate (W-Th)
Okaloosa County, bay regions: High (M), Moderate (Tu-Th)
Walton County: Very Low (M-Tu), Moderate (W-Th)
Bay County: Very Low (M-Tu), Moderate (W-Th)
Bay County, bay regions: High (M-Th)
Gulf County: Moderate (M,Tu,Th), Very Low (W)
Gulf County, west bay regions-St. Joseph Bay area: High (M-Th)
All Other NWFL County Regions: None expected (Th-M)
SWFL County Regions: Visit http://tidesandcurrents.noaa.gov/hab/#swfl

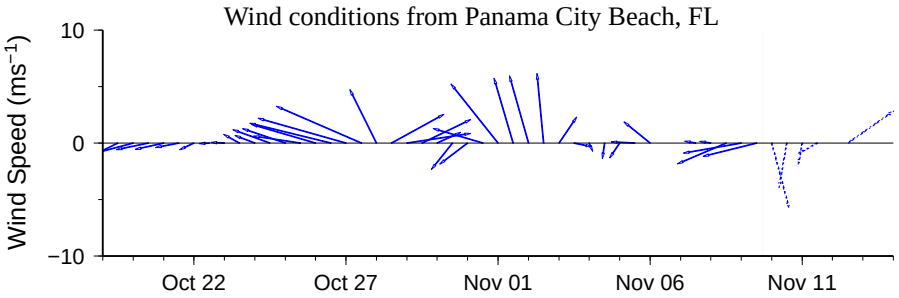
Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Health information, from the Florida Department of Health and other agencies, is available at http://tidesandcurrents.noaa.gov/hab/hab_health_info.html.Dead fish have been reported from Escambia, Okaloosa, Walton, and Bay counties. Respiratory irritation has been reported from Okaloosa County.

Analysis

Recent samples collected over the past week alongshore northwest Florida continue to identify background to 'high' *Karenia brevis* concentrations alongshore Escambia to Gulf counties, with the highest concentrations identified in St. Andrews Bay of Bay County (FWRI; 11/2-11/6). Reports of respiratory irritation were received from alongshore Fort Walton Beach in Okaloosa County where sampling indicated *K. brevis* was not present alongshore and up to 'medium' concentrations offshore (FWRI, MML; 11/3-11/4). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: http://myfwc.com/redtidestatus. Reports of dead fish have been received from Escambia, Okaloosa, Walton and Bay counties in the past week, reports of respiratory irritation have been received from Okaloosa County (FWRI, MML; 11/5-11/9).

In recent ensemble imagery (MODIS Aqua, 11/6), patches of elevated chlorophyll (2 to 8 μg/L) with the optical characteristics of *K. brevis* are visible alongshore northwest Florida from Okaloosa to Bay County and 6-30 miles offshore Escambia and Santa Rosa counties.

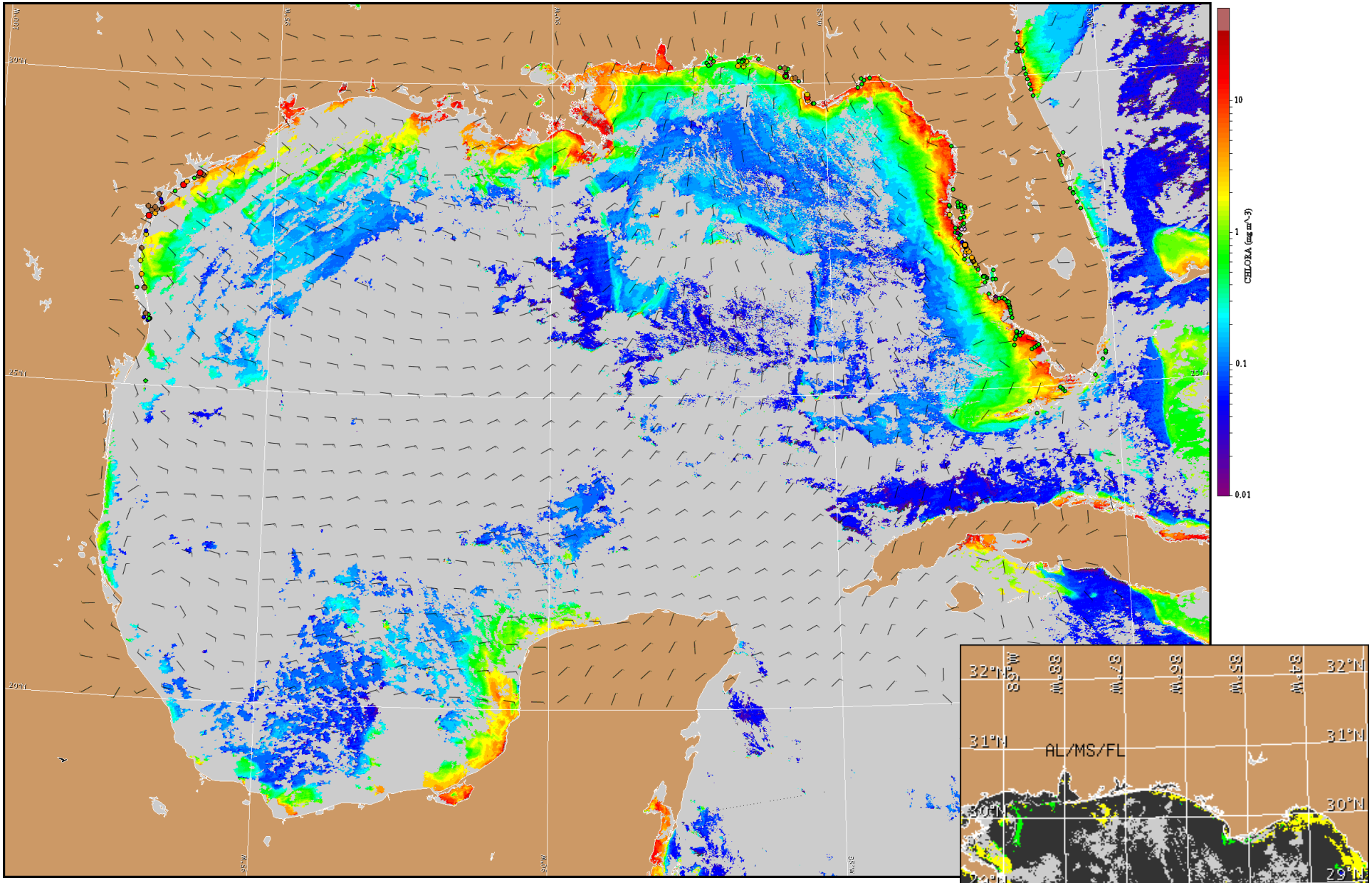
Variable winds forecast today through Thursday may minimize the transport of *K. brevis* concentrations in northwest Florida. -Yang, Davis



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

Wind Analysis

Escambia to Taylor counties: South winds (20kn, 10m/s) Monday becoming west (15-20kn, 8-10m/s) Monday afternoon. North to northeast winds (5-15kn, 3-8m/s) Monday night through Tuesday night. Southeast to south winds (5-10kn, 3-5m/s) Wednesday. West winds (10kn) Thursday. North winds (10-15kn, 5-8m/s) Thursday night.



Satellite chlorophyll image and forecast winds for November 10, 2015 12Z with points representing cell concentration sampling data from October 30 to November 6: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide: http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).